

### **REMARKS**

Entry of the amendments is respectfully requested. Claims 14 and 18 have been amended. New claims 22–27 have been added, therefore, claims 12–27 are pending in this application.

In this Office Action, the Examiner has rejected claims 12, 13, 16, 17, and 19 under § 102(b) as being anticipated by Kutsuzawa et al. (U.S. Patent No. 5,972,426) and rejected claim 20 under § 103(a) as being unpatentable over Kutsuzawa et al. in view of van Brederode et al. (U.S. Patent No. 3,981,957).

In addition, the Office Action indicates that claims 14, 15, and 18 contain allowable subject matter and would be allowed if rewritten in independent form. Claims 14 and 18 have been so rewritten. Claim 15 depends from claim 14. New claims 22–25 have been added and depend from one of allowed claims 14 and 18. In addition, new claims 26 and 27 have been added and each require holes having a combined discharge area equal to about 10 – 20 % of the area of a corresponding uninterrupted discharge aperture. This claim limitation is in all of the claims that the Examiner has indicated as being allowable or allowed. Therefore, new claims 22–27 are also believed to be allowable.

Favorable reconsideration and allowance of this application is respectfully requested in light of the foregoing amendments and the remarks that follow.

#### **Independent Claim 12**

Claim 12 is believed to be in condition for allowance. Claim 12 recites a method for the spray extrusion of a low viscosity coating material onto an object via a nozzle connected to a pressurized source of the coating material. Claim 12 requires “discharging the coating material through a discharge aperture of the nozzle under pressure, the discharge aperture comprising a pattern of discrete discharge holes debouching into *a front surface* of the nozzle and configured such that the coating material is discharged from the holes in separate strings with *a relatively high discharge velocity*.” Claim 12 further requires “impinging the separate strings of the coating material on the object, then fusing the impinged separate strings of the coating material together on the object *to form a continuous strip of the coating material*.”

The Kutsuzawa et al. patent fails to disclose each and every element of the novel subject matter disclosed and set forth in claim 12. Therefore, claim 12 is believed to define over the Kutsuzawa et al. patent. The Kutsuzawa et al. patent fails to disclose “the discharge aperture comprising a pattern of discrete discharge holes *debouching into a front surface of the nozzle*,” as claim 12 requires. The lack of such a hole arrangement, i.e., holes formed in the front surface of the tip of the nozzle, in Kutsuzawa et al. results in materials discharged from the nozzle *not* impinging against an object in discrete strings. Further, there is no disclosure in the Kutsuzawa et al. patent of discrete strings of material impinging on an object and *subsequently* fusing into a continuous strip, as claim 12 further requires.

Moreover, the Kutsuzawa et al. reference *teaches away* from the claimed invention. More specifically, the Kutsuzawa et al. reference teaches, at col. 7, lines 16-22, discloses that the coating nozzle discharges coating solution at a relatively low pressure to minimize the amount of coating solution consumed. This results in the coating solution being discharged at a relatively low velocity. This contrasts with the claimed invention, which recites that, the “coating material” is discharged “through a discharge aperture of the nozzle under pressure” “with a relatively high discharge velocity.” For at least this reason, independent claim 12 must be allowed.

For at least these reasons, claim 12 and claim 13, which depends therefrom, are believed to be in condition for allowance and allowance is respectfully requested.

#### **Independent Claim 16**

Claim 16 is believed to be in condition for allowance. Claim 16 recites a nozzle for the spray extrusion of a low viscosity coating material. Claim 16 requires a connector and a body. Claim 16 further requires “a tip having a plurality of discrete coating material discharge holes formed therein, the holes debouching into a front surface of the nozzle and being dimensioned and positioned relative to one another such that the coating material is discharged therefrom and impinges upon the object in discrete strings and thereafter fuses together on the object to form a continuous strip of the coating material.”

The Kutsuzawa et al. patent fails to teach each and every element of the novel subject matter disclosed and set forth in claim 16. As should be apparent from above, the Kutsuzawa et al. patent does not disclose the nozzle of claim 16, because, *inter alia*, the Kutsuzawa et al. patent does not have a nozzle with holes debouching into a front surface of the nozzle. Further, the holes of the Kutsuzawa et al. patent are not dimensioned and positioned relative to one another such that the coating material is discharged therefrom and impinges upon the object in *discrete strings*, as claim 16 requires.

For at least these reasons, claim 16 and claims 17 and 19, which depend therefrom, are believed to be in condition for allowance and allowance is respectfully requested.

**Independent Claim 20**

Claim 20 is believed to be in condition for allowance. Claim 20 depends from claim 16 and further requires that the nozzle be composed of stainless steel. The Examiner recognizes that the Kutsuzawa et al. patent fails to disclose this limitation and cites the van Brederode et al. patent to cure this deficiency. However, the von Brederode et al. patent fails to cure the base deficiencies in the Kutsuzawa et al. patent noted above with respect to claim 16.

For at least these reasons, claim 20 is believed to be in condition for allowance and allowance is respectfully requested.

**Independent Claim 26**

Claim 26 is believed to be in condition for allowance. Claim 26 recites limitations found in claims 12 and 14, claims indicated by the Examiner as reciting allowable subject matter.

For at least this reason, claim 26 is believed to be in condition for allowance and allowance is respectfully requested.

**Independent Claim 27**

Claim 27 is believed to be in condition for allowance. Claim 27 recites limitations found in claims 16 and 18, claims indicated by the Examiner as reciting allowable subject matter.

For at least this reason, claim 27 is believed to be in condition for allowance and allowance is respectfully requested.

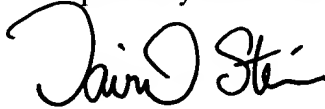
**Conclusion**

All of the claims as amended are believed to define patentable subject matter and to be in proper form for allowance. New claims 22-27 are also believed to be in condition for allowance. Therefore, consideration and allowance of claims 12-27 are respectfully requested.

Enclosed is a check in the amount of \$1,208.00; \$258 in payment of the government fee for three additional independent claims in excess of three, and \$950 for a three-month extension to respond. The Commissioner is authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1170.

Please feel free to contact the undersigned if it would expedite matters.

Respectfully submitted,



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Dated: November 13, 2003

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